

**Notice of Allowability**

Application No.

10/602,792

Examiner

Igor Kershteyn

Applicant(s)

GILLMAN ET AL.

Art Unit

3745

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ The drawings filed on 24 June 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_.

***Reasons for allowance***

The following is an examiner's statement of reasons for allowance:

The instant invention is deemed to be directed to an unobvious improvement to an engine piston over U.S. Patent No. 6,318,243 which teaches an engine piston having a crown 12 comprising an outer crown surface 34 adapted for exposure to engine combustion temperatures, an undercrown 32 adapted for exposure to crankcase fluids.

The improvement comprises a plurality of cooling pins extending from the undercrown for contact with crankcase fluids to assist in cooling the piston crown.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Prior Art***

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consist of six patents.

Blose (1,073,086) is cited to show an engine piston having an undercrown with cooling structure but it is not clearly shown in the drawings either the cooling structure includes pins or conventional ribs and there is no mentioning of it in the specification.

Minter (1,741,032) is cited to show an engine piston having a plurality of pins arranged on the crown but fails to show the pins projecting from the undercrown.

Swanson (2,213,418) is cited to show an engine piston having an undercrown with cooling structure but it is not clearly shown in the drawings either the cooling

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structure includes pins or conventional ribs and there is no mentioning of it in the specification.

Munoz et al. (4,363,293) is cited to show an engine piston having an undercrown with cooling structure but fails to teach a plurality of cooling pins.

Dent (4,617,888) is cited to show an engine piston having a plurality of pins arranged on the crown but fails to show the pins projecting from the undercrown.

Silvonon et al. (5,975,040) is cited to show an engine piston having an undercrown with plurality of pins extending from it's surface but fails to teach the pins being a cooling pins.

***Contact information***

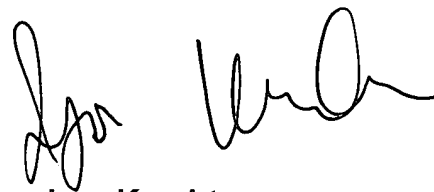
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kershteyn whose telephone number is (703) 308 8317. The examiner can be reached on Monday-Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached on (703) 308 1044. The fax number is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308 0861.

IK

September 17, 2004



**Igor Kershteyn**  
**Patent examiner.**  
**Art Unit 3745**

**EDWARD K. LOOK**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**  
9/20/04